Chapter 15

Intangible Influences Affecting the Value of Estate

Vladimír Kulil

Additional information is available at the end of the chapter

http://dx.doi.org/10.5772/66792

Abstract

The process of valuation of intangible influences was surveyed in China, Hong Kong, the USA, Canada, Japan, Germany, the UK, Poland, Russia, and Western Europe. Situation in mentioned locations is similar; valuation of intangible influences has not been determined by a concrete list of items and there has not been established, concrete clear process. This chapter proposes a method of valuation of goodwill (GW)-special effects that will impact assets' prices. It deals with proposed procedures for valuation of intangible assets and definitions of such property. Special effects are in particular name, historical value, design, quality of layout, security aspects, accessibility, conflict groups of inhabitants in or near the property, location, provenience, and other. The value of goodwill can be calculated as the difference between the market value and the material value. Part of the methodology is a general proposal for a method how to divide the assets into tangible and intangible part and author's software VALUE-RATUS 2015.

Keywords: market value, goodwill, bad will, price of real estate, tangible assets, intangible assets, coefficient of marketability

1. Introduction

Valuation of intangible assets includes certain specifics compared to cost assets. The specifics should be considered in the methodology and in final price. There exists a basic consensus in the way of tangible assets evaluation, in the case of intangible assets there is not. The aim is to introduce the scientific public with a different view on the essence of valuation. In scientific literature focused on real estate valuation there nearly does not exist a phrase intangible assets and real estate. Many appraisers consider buildings that are fixed with a land as a purely tangible thing. So it is not. Regarding the price, a property consists of intangible parts that have significant impact on valuation and this perspective is emphasized in this chapter.

Goodwill (GW) is an economic term denoting the difference between the market value of the company and substance price, less any liabilities. Indicates a value, intangible assets such as customer relationships, reputation, reflects market position, quality, and especially tradition. Goodwill can distinguish two ways: on the goodwill of the original and secondary. Initial goodwill is to create their own company's business activities, but not in the accounts of a company recognized because it is not reliably measurable. Secondary acquires goodwill on the acquisition of another company. Badwill (BW) is negative goodwill.

2. Overview of a current state of knowledge

Division of assets into tangible and intangible part has not been solved in the available literature and methodologies woxrldwide. Experts have no definite foothold for valuation. This division is very important and necessary for valuation of property as a whole; it brings a clearer overview of a quality and inner essence of a corporate assets, tangible subjects, and real estate. For example, it can represent an important measurement for investment decisions of investors. If the real estate as whole represents badwill , then it would be preferable to allocate capital to a location and environment with goodwill.

Usually, value of goodwill is determined by estimation with using complementary methods, there has not been reached a general consensus not in real concept goodwill meaning neither in its calculation. None of the definitions is fully accepted in general catholicity. For practical valuation, it is necessary to define the way of valuation of special influences–goodwill and badwill clearly.

In an international environment aside the Czech Republic, a survey focused on definitions and valuation of intangible assets was realized. In Germany, the final list of special intangible influences depends on an expert, who defines and evaluates them. In Great Britain so-called Red Book (RICS) is the basic document for valuation, the process is similar. The process of valuation of intangible influences was also surveyed in Poland, Russia, Hong Kong, the USA, Canada, Japan, China, and Western Europe.[1] Situation in mentioned locations is similar, valuation of intangible influences has not been determined by a concrete list of items and there has not been an established concrete clear process. In Slovakia, intangible influences are the part of price regulation[2] especially in the field of methods of location differentiation. Up to 21 factors of intangible effects for constructions and up to 22 factors for lands have been defined in Slovakia. The most detailed processes and unified definitions for intangible assets valuation abroad are in an international valuation standard IVS, where the issue is solved only at the general level without any concrete list of intangible special influences.[3] European valuation

[1]Seabrooke W., Kent P., Hwee Hong How H. International Real Estate an Institutional Approach. UK, USA, Australia: Blackwell Publishing Ltd., 2004, pp. 130–361.

[2]Decree No. 492/2004 Coll. of the Ministry of Justice of the Slovak Republic on the Determination of General Value of Real Estate.

[3]International Valuation Standards Committee: International Valuation Standards, 7. edition 2005, IVSC, London 2005, Change Proposal June 2010, Decree no. 1, no. 4, no. 6.

http://dx.doi.org/10.5772/66792

standards TEGoVA[4] have similar conception and they are formed in order to be conform to standards IVS and also in order to reach worldwide consensus in best practices in the valuation process (see **Table 1**).

Nr.	*Intangible pricing influences by modifying K_p per item with detailed list itemization*	*Recommended range %*
1.	Location favorableness in the locality compared to the average of the locality	From −10% to +10%
2.	Real estate name, prestigiousness, dominance	From −10% to +10%
3.	Historical value, cost of preservation of monuments	From −10% to +10%
4.	Architectonic rendering, the quality of disposition, view	From −10% to +10%
5.	Safety, users' privacy, conflict inhabitants in the surroundings	(From −70% to +10%)
6.	Danger of floods, landslides, damage from transport, bad smells, air pollution	From −10% to +10%
7.	Dangerous disposition and harmful material, radon	From −10% to 0%
8.	Transport accessibility with respect to the average standard in the surroundings	From −10% to +10%
9.	Impact of terraced housing, a building inside a row or at its end	From −10% to 0%
10.	Pricing perspective of real estate and other influences	From −70% to +10%

Table 1. Intangible pricing influences.

A good-quality system for intangible influences valuation according to price regulation[5] exists in the Czech Republic. Since 1997 a system has been developing and finishing with the aim to approximate maximally administrative prices to market prices. In the area of special influences, methodology introduced in Decree with appendixes is valid. For cost valuation under the price regulation from 1997 to 2013 marketability coefficients (K_p) were valid. The coefficients represent relationship between real estate price agreed according to buying contract and their prices determined on the basis of price regulation transferred to the unified price level (appendix no. 39 of Decree). While valuating by comparative way in decree appendixes up to 35 items of intangible special effects were determined, but in practice up to 100 current effects can be determined.

3. New findings and special influences valuation

The following procedure for valuation of goodwill and badwill types of assets of enterprises resulting from the mentioned model approaches appears as the most objective. Enterprise assets will be evaluated by a comparative, yield and cost method. The price will be adjusted in each used method according to an influence of special effects, which means good or bad

[4]EVS–European Valuation Standards, 5. edition 2003.

[5]Czech Act on Property Valuation No. 151/1997 Coll. with implementing decrees.

reputation and according to other special effects which influence usual market price. Other evaluated intangible assets of an enterprise (except goodwill) are included in the price if they really exist. On the basis of these data, market price is appraised. Similarly, valuation of goodwill and badwill by using the comparative, yield and cost method shall be worked out for real estate. A price in each method will be adjusted by direct special influences, it means good reputation, bad reputation, and other similar influences and it will influence the market price level. On the basis of this background, market price will be appraised. The amount of goodwill (GW) or badwill (BW) is the difference market price (CO) and cost price (CC) as:

$$GW(BW) = CO–CC. \tag{1}$$

The market value CO is determined by multiplying the cost value CC (replacement cost less depreciation, or material value) by marketability coefficient (*KP*) according to the relationship

$$CO = CC \times KP, \tag{2}$$

it follows that

$$KP = CO/CC. \tag{3}$$

The marketability coefficient is defined as the ratio between the average actual sales values achieved and the average cost prices of a comparable type of things at the particular time and location.

In context with intangible part of property, the valuer's approach is significant. An approach should be not only technical, but except experiences valuer should have also an expert feeling for fair and objective assessment of the matter of the circumstances, which have an impact on a property price. So, ethically right valuer processes are very important and it should be better integrated into the Czech law in the field of forensic experts. A judge is obliged by legal promise that he will decide conscientiously and fairly and since judge requires an expert opinion, an expert has to seek the market price which is fair and according to the best conscience.

Ownership of created movable or construction means a possibility of any manipulation in conformity to the laws. Even if the construction is defined as immovable we can move it to another land or a construction can be duplicated, certain depreciation exists here, lifespan is maximally hundreds or several thousand years. This property can be destroyed, concretely its material and also nonmaterial part. However, land as a part of the planet's surface cannot be created, transferred, or destroyed. The main component of land price is represented by nonmaterial part of a land. The tangible part of a land price has minimal or zero price as it is more described in the following text.

Permanent vegetation is a part of the plot of land and has a material substance which can be determined by using a cost, yield, or comparative method especially in relation to economic

http://dx.doi.org/10.5772/66792

benefit. Permanent vegetation also has an intangible component that is valuable as in the case of plots of land and buildings. It implies to special influences of actual demand and usability for the owner or potential buyer. An intangible component of permanent vegetation is represented by the landscape and aesthetic function, ensuring privacy and recreation, security, defense, windbreak function, protection against noise, odors, dust, pollutants, against inclement weather and climate, providing reinforcement of subsoil slope, and land. The following factors belong also to this group: erosion as influences, hydrological function, oxygen production, the possibility of the existence of fauna, flora, production of fragrances, cultural and historical features, for example, with protected trees, etc.

4. Methodology proposal for special influences valuation in the field of real estate

In the field of real estate, marketability coefficients (K_p) have been worked out for valuation with administrative price. Marketability coefficients K_p take into consideration location of structures and plots of land on the basis of statistical assessment of all realized sales in the Czech Republic. The effect of location on the price is very important. Administrative cost prices with K_p in some categories of property are multiplies of the cost price determined without K_p.

A utility value is clearly defined in a German literature: the utility value of real estate consists of a quality and location parts. A quality part of real estate refers to a technical quality and to the architectural design and equipment. Location part respects a structure of build-up area, traffic availability, availability of connection to local infrastructure, influence of noise, industrial emissions, influence of historical development of a town and so-called very valuable addresses. The utility value of real estate is therefore a critical item in relation to a price. According to Anglo-Saxon literature, a goodwill has to be considered as a documentary only if a long-term income in the context with goodwill can be expected. It is assumed that for this property, a buyer paid an extra charge, which is as an intangible asset supported by the utility value.[6] Just so defined extra charge can be considered as special valuation of surveyed special intangible influences that help to create a value of movables, real estate, and enterprise. Intangible assets of a goodwill type are the subject of financial reporting and accounting depreciation in enterprises, but in an international trade accounting rules are inconsistent. In the acquisition of enterprises, a very significant sum for the goodwill can be reported. Acquisition also contains immovable assets, which are part of the intangible assets of firms. For example, when buying the American company Gerber Product Co. by Swiss company Sandoz Ltd. goodwill amounted to 3.2 bn. USD in transactions totaling 3.7 billion. USD, it is about 86% of the purchase price.[7]

[6]Horne Van J. Financial Management and Policy. New Jersey, USA: Englewood Cliffs, 1989, s. 647.

[7]Shetty A. a kol. Finance and Integrated Global Approach, USA: Austen Press, Homewood, 1995, s. 577, s. 600.

5. List of the groups of special influences

Marketability coefficient (*KP*) is a product of marketability coefficient (K_p) determined by Czech price regulation and index of additional special influences if they exist and have an impact on a price. If K_p is not determined or does not correspond to an average market price, then it can be determined by an expert appraisal, for example, with the help of statistical office data.

$$KP = K_p \times \left(1 + \sum_{i=1}^{10} KPi\ \% \times 0.01\right) \quad (4)$$

The percentage range is recommended and was determined by an expert estimation, according to a general specialized literature for valuation and also with regard to determined margins in previous regulations valid since 1977. A correction scale is proposed as 50% of the recommended range in the case of advantage or disadvantage due to special influence and at the same time, the scale is proposed as 100% of the recommended range due to significant advantage or significant disadvantage. The ranges were proposed as a price adjustment compared to the average standard of real estate in a given location. Based on the calculations of special influences in the case of real estate, it is clear that the rate must be applied sensitively with the principle of prudence, depending on actual market demand.

Only influences with reasonably justifiable impact on property price can be calculated. Rates of surcharges and reductions percentage for those hundred items of proposed special influences need to be considered both in terms of cost, and particularly in terms of the market value–the usual market price, thus impact on the marketability of a specific property in real time and place. Recommended rates and limits are valid jointly for the whole collection of structures, plots of land, and permanent vegetation. Final valuation of special influences will be realized by the sum of increases and reductions with conclusive justification.

6. Intangible assets ownership and valuation

6.1. Ownership

Who owns the permanent vegetation, buildings, or landscaping (even future) on the plot of land, usually owns the goodwill or badwill relating to this land.[8] The price of land is also a reflection of the external construction work on the adjacent land, or even in distant surrounding, for example in terms of access to the land or flood prevention measures, to build public facilities. Goodwill and badwill in this case automatically become the property

[8]Kulil, V. (2015).Goodwill and Valuation. Saarbrücken Germany: OmniScriptum GmbH & Co. KG. [monografie]

http://dx.doi.org/10.5772/66792

of the owner. Mentioned external investments have an impact on the owners' property. It is a free acquisition of intangible assets. Only some cases of badwill can be compensated by an investor, usually only in the case of exceeding the health, sanitary, and technical standards (e.g., dust, odors, and noise from the road). The land without the possibility of any building, construction, and technical adjustments without a permanent vegetation, which has not any use for a human even prospectively, has not any value for a human and any intangible part of the price.

6.2. Yield value VH

For yield valuation assessment of goodwill (badwill) will be realized by a reasonable adjustment of the capitalization rate through adequate reduction or surcharges compared with an average standard of the real estate quality. An identical correction of the sum of the influences by the cost method is proposed as a standard level of capitalization, which is tied to the material component of the property, should be modified only by aspects of intangible assets, considering assets risk in the future. Capitalization rate (P) used for calculating the yield value will be adjusted by the identical percentage according to price influences (adjustment of risk surcharge) compared to the standard character of the property, with an average capitalization rate (k) and the average amount or profitability risk. Generally while using the calculation according to the formula for perpetual annuity, the yield value is the ratio of net annual return (CV) and (P) capitalization rate as a percentage:

$$\mathrm{VH} = \mathrm{CV}/P\,\%, \tag{5}$$

$$P\,\% = k\,\% + 0.01 \times \left(\sum_{i=1}^{10} KPi\%\right). \tag{6}$$

6.3. Comparative value PH

In this case valuation will be realized as comparison toward standard etalon in relation to goodwill (badwill). A comparative value (PH) will be adjusted by the rate $\pm\sum KPi$ compared to an average comparative value of real estate (Ph) without special influences. Using the indexes should be reasonably justified. Identical influences and rates of individual groups of items from no. 1 to no. 10 for comparison will be used. It is also possible to use a direct comparison with other property regarding existing special influences if there are resources for comparing the appropriate quality. However, it is necessary to take into account the need of comparing a large number of qualitative characteristics, which may generate significant mistakes with regard to the limited information on the compared properties which are available. An aforementioned method of comparison with average real estate etalon therefore appears as a more accurate method and in the latest phase it is recommended to adjust the results by extraordinary special influences:

$$PH = Ph \times \left(1 + \sum_{i=1}^{10} KPi\% \times 0.01\right). \tag{7}$$

6.4. Market value CO

According to cost, yield, and comparative valuation mentioned in previous sections, there will be realized an appraisal of market value. The amount of price of special influences–goodwill and badwill–will be the difference between market value of property and cost price without *KP* (cost price CC). The amount of harm in connection with the easement will be counted as a standard yield method and subtracted from the market value of the property. The maximum discount is not determined.

6.5. Coefficient of an intangible asset

From the concept of marketability coefficient *KP* or K_p (in German-speaking countries a similar term market hopefulness is used) its fundamental as an index for determining the degree of special influences–intangible assets (NM) in a positive or negative amount toward the current price (CC) and usual market price–value of assets (CO) as a whole is not obvious.

$$\mathrm{CO} = \mathrm{CC} + \mathrm{NM}. \tag{8}$$

Coefficient of an intangible asset (K_{NM}) appears to be more accurate term. An intangible character of valued property results from the mentioned term. And it shall not be determined as the estimated generally not well-understood constant, which an expert established. This coefficient can be expressed by the following formula:

For real estate

$$K_{\mathrm{NM}} = (\mathrm{CC} + \mathrm{NM})/\mathrm{CC}. \tag{9}$$

For movables

$$K_{\mathrm{NM}} = (\mathrm{CC} + \mathrm{NM})/\mathrm{CC}. \tag{10}$$

For enterprises from the material value (*S*)

$$K_{\mathrm{NM}} = (S + \mathrm{NM})/S. \tag{11}$$

7. New methodology

The separate system of valuation tangible and intangible assets was worked out.[9] For the field of special influences, there were proposed and defined apposite terms goodwill and badwill for valuation analogically according to the terms used by economists and appraisal experts while appraising enterprises. The character and fundamental of marketability coefficients *KP*

[9]Kulil, V. (2014). Goodwill and Valuation. Brno: Akademickénakladatelství CERM s.r.o. [monografie]

are clarified from the point of view of their relationship to tangible and intangible assets. Ten main areas and hundred items of intangible influences affecting real estate price are complexly defined. It is a modular method, influences are evaluated in percentage. A higher number of influences more than 100 are possible, for practical use, however, it can be misleading.

The author created a software NEMO-RATUS 2015[10] for practical use. The proposed procedures in the whole extend of valuation including table analysis of proposed hundred special influences for real estate with logarithmic regression and including intangible assets into cost yield, comparative, and market price are applied in the computer system. The market price of property is automatically divided into tangible and intangible part. For more details see http://www.ekf.vsb.cz/k166/cs/. The proposed procedures and detailed listing of special influences represent a comprehensive, practical, and unequivocal support for the valuation practice of experts.

Real estates have only two parts of market price. It is cost-quantifiable tangible cost price, which is adjusted by intangible goodwill (GW) or badwill (BW), its price can only be appraised. The intangible and relative character of special influences results from their external character impact. The proposed methodology enables to divide each movable and immovable property into the tangible part (cost price) and the intangible part (GW, BW) with sufficiently estimated accuracy for practical use. Then also enterprise assets can be newly divided into tangible and intangible parts. Goodwill or badwill as a summary of specific intangible impacts on the market price is calculated as the difference between the market value of the property and its cost price. This rule applies generally to movable property, immovable property, and enterprises.

Plots of land price are represented by all rights related to human activities on a land including construction and construction rights. The plot of land is to full extend intangible asset only of the goodwill type. The land price is not determined randomly, but is a reflection ("shadow") of values of specific structures located there or planned or it is a reflection of future use. Owner of the intangible part of the price of real estate is an investor, that plan and finance modifications of the property. It may not always be real estate owner. Goodwill or badwill caused by investments or investment plans in the area of valuated real estate passes automatically and free of charge to the ownership of the property owner.

8. Summary

The aim of the chapter was to work out a proposal for valuation of special influences that have an impact on real estate price . Controllable procedures for the valuation of intangible assets were proposed. A system of valuation with direct implementation in cost, yield and comparative methods from which we can estimate the market value was proposed. In the case of real estate special influences are defined mostly as good or bad name of locality real estate, historical value, design, quality of layout, safety aspects, transport accessibility, conflict inhabitants in the surroundings, influence of terraced house, other influences, and price perspective.

[10]Kulil V. (2015). *Software for goodwill valuation VALUE-RATUS*. http://www.ekf.vsb.cz/k166/cs/.

Terms goodwill (GW) in the case of positive impact and badwill (BW) in the case of negative impact were defined for each surveyed special influence.

JEL classification: M21, M31

Additional sources

Czech Act *on Property Valuation No. 151/1997 Coll. with implementing decrees*.

ČSÚ Praha. (*1993–2015). Statistickéúdaje*. https://www.czso.cz/csu/czso/domov.

EUROSTAT Brusel. (1998–2015). *Statistickéúdaje EU*. http://ec.europa.eu/eurostat.

EVS–*European Valuation Standards*, 5th edition, 2003.

IVS–International Valuation Standards Committee: *International Valuation Standards*, 7th edition 2005, IVSC, London 2005, Change Proposal June 2010, Decree no. 1, no. 4, no. 6.

Author details

Vladimír Kulil

Address all correspondence to: vladimir.kulil@vsb.cz

Faculty of Economics, VŠB-Technical University of Ostrava, Ostrava, Czech Republic

References

Brachmann, R. (1993). *Construction Costs of Industrial Buildings, Commercial Factory Price of Real Estate, Insurance Rates*. Praha, Czech Republic: CONSULTINVEST. [monografie]

Bradáč, A. a kol. (2009). *Theory of Real Estate Evaluation, VIII. edition*. Brno, Czech Republic: AN CERM s.r.o. [monografie]

Horne, V. J. (1989). *Financial Management and Policy*. New Jersey, USA: Englewood Cliffs. [monografie]

Kulil, V. (2014). *Goodwill and Valuation*. Brno, Czech Republic: AN CERM s.r.o. [monografie]

Kulil, V. (2015). *Goodwill and Valuation*. Saarbrücken Germany: OmniScriptum GmbH & Co. KG. [monografie]

Kulil, V. (2015). *Software for goodwill valuation VALUE-RATUS*. Ostrava, Czech Republic: http://www.ekf.vsb.cz/k166/cs/.

Ross, F., Brachmann, R., Holzner, P. (1993). *Detection of Construction of the Buildings and Commercial Real Estate Values*. Praha, Czech Republic: CONSULTINVEST. [monografie]

Seabrooke, W., Kent, P. A., Hwee, H. (2004). *International Real Estate an Institutional Approach*. UK, USA, Australia: Blackwell Publishing Ltd. [monografie]

Shetty, A., McGrath, F. J., Hammerbacher, I. M (1995). *Finance and Integrated Global Approach*. USA: Austen Press, Homewood. [monografie]

Telec, I. (2007). *Overview of Intellectual Property Rights I, Human Rights Foundation, License Agreement*. Brno, Czech Republic: Doplněk. [monografie]

IntechOpen